Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

This submission is accompanied by a petition for one month extension of time. This submission is therefore timely pursuant to 37 C.F.R. § 1.7. All fees associated therewith should be charged to deposit account 14-1138. Any overpayment or underpayment should be credited/charged to this same account.

No amendments have been entered for claims 1-5, 7-11, and 17-21. New claim 22 has been introduced. New claim 22 is similar to claim 1 except that the "replacing" function of claim 22 is limited to the "replacing portions of the title..." (i.e., subparagraph (ii) of claim 1).

Claims 1-5, 7-11, and 17-22 remain pending and under examination. No excess claim fees are due with this submission.

The rejection of claims 1, 2, 4, 10, 11, and 17-19 under 35 U.S.C. § 103(a) for obviousness over U.S. Patent No. 6,212,327 to Berstis et al. ("Berstis") in view of U.S. Patent No. 6,128,650 to De Vos et al. ("De Vos") and U.S. Patent No. 6,681,396 to Bates et al. ("Bates") is respectfully traversed.

Berstis teaches a data processing system, such as a set top box, which monitors a network supplied data stream. Upon detection of user-defined data items, the system controls an appropriate record/playback device to record a broadcast associated with the detected data item.

De Vos teaches a video/audio data serving system, which is intended to be connected to a plurality of end devices. On page 3 of the office action, the PTO cites to De Vos' teaching of storage means and user output means.

The PTO acknowledges that the combination of Berstis and De Vos is deficient in teaching a content analysis means as recited, and cites Bates' use of a system that records television programs. Bates teaches that when a program is interrupted, the set top box automatically scans for further showings of the program (Figure 4) and then, if found, provides a user with dialog boxes (Figures 5-6) to enable a user to select one of the future showings (col. 6, lines 65-67) and, if desired, select to automatically display or record the same (col. 7, lines 14-31). Thus, input is required from a user to decide which of the future showings to record (or display). However, if no future showings are identified at the time of the interruption in programming, then the subroutine terminates and no provision is afforded to improve the quality of the interrupted title.

In contrast, the invention of claim 1 recites the presence of "a content analysis means (56) for examining and improving a quality of an audio or audio/visual stream stored in the recording collection and identifying at least one of: a profile of the stream, and voice over sections of the stream, degraded sections of the stream, and commercial detection." The system of Bates does not include any module that is capable of examining the quality of an audio or audio/visual stream stored in the recording collection and identifying at least one of: a profile of the stream, and voice over sections of the stream, degraded sections of the stream, and commercial detection" (emphasis added). Rather, according to Bates, the interruption is sufficient only to prompt for user input in its system, and it only applies to the program that was interrupted. As noted above, in the absence of identifying a future showing of the interrupted program (i.e., at the time of the initial interruption), then no improvement will be made. Thus, Bates does not teach analyzing the content of streams that are already stored in a recording collection such that if a better quality transmission is detected the stored stream can be replaced or edited. Berstis and De Vos are similarly deficient in this regard.

Moreover, as recited in claim 1, it is "the content analysis means (56) [that] improves the quality of the audio or audio/visual stream stored in the recording collection by comparing a title in the audio or audio/visual recording collection (48, 50) to a title stored in a real time file system or a common memory and either: (i) replacing a title in the audio or audio/visual recording collection (48, 50) with a title stored in the real time file system or the common memory or (ii) replacing portions of the title in the audio or audio/visual recording collection in order to remove voice over portions or defects of any kind or commercials." In the Bates system, it is the user that selects the content that is to be used to replace the interrupted program, but only if and when prompted. In contrast, in the presently claimed invention, it is the content analysis means that determines whether or not a program received by the real-time file system is superior to that stored in a collection. Thus, in the claimed invention no user interaction is required as the programs are received and analyzed transparently to the user.

In addition, even if no user interaction to record programs was required in Bates, this would have the consequence that multiple versions of the program would be stored, which would be exacerbated if the program is also interrupted on subsequent showings. In other words, from the user's perspective the existing interrupted stored program is not improved, it is simply used as the reason for storing at least one further version of the program. This has the disadvantage of using up extra space on the hard drive or other storage media, such that further

scheduled recordings may not be possible due to the lack of space. In contrast, the present invention solves this problem by replacing affected programs or portions thereof, such that a single optimal program is stored.

With respect to claim 17, the combination of Berstis, De Vos, and Bates is deficient in teaching or suggesting the steps of "examining and improving a quality of an audio or audio/visual stream stored in the audio/visual collection and identifying at least one of: a profile of the stream, voice over sections of the stream, degraded sections of the stream, and commercial detection" (emphasis added) followed by "replacing a title in the audio or audio/visual recording collection with a title stored in the real time file system or the common memory or replacing portions of the title in the audio or audio/visual recording collection (48, 50) in order to remove voice over portions or defects of any kind or commercials." As explained above, Bates clearly fails to teach these features, and the PTO has acknowledged the deficiencies of Berstis and De Vos in this regard.

For all these reasons, the rejection of claims 1, 2, 4, 10, 11, and 17-19 for obviousness over the combination of Berstis, De Vos, and Bates is improper and should be withdrawn

The rejection of claims 3 and 20 under 35 U.S.C. § 103(a) for obviousness over the combination of Berstis and De Vos further in view of U.S. Application Publ. No. 2004/0019497 to Volk et al. ("Volk") is respectfully traversed.

At pages 3-4 of the outstanding office action, the PTO acknowledges that the combination of Berstis and De Vos fails to disclose content analysis means as recited in claims 1 and 17. However, at pages 5-6 of the office action, the PTO fails to indicate how Volk overcomes these deficiencies. Therefore, the rejection of claims 3 and 20 over the combination of Berstis. De Vos, and Volk is improper and should be withdrawn.

Even if the PTO intended to cite Bates in this rejection, given the above-noted deficiencies of the combination of Berstis, De Vos, and Bates with respect to claims 1 and 17, the failure of Volk to overcome these deficiencies means that such a rejection also would have been improper (has it been made).

The rejection of claims 5 and 21 under 35 U.S.C. § 103(a) for obviousness over the combination of Berstis, De Vos, and Bates further in view of U.S. Application Publ. No. 2002/0083060 to Wang et al. ("Wang") is respectfully traversed.

The teachings and deficiencies of the combination of Berstis, De Vos, and Bates with respect to claims 1 and 17 are noted above. However, at page 6 of the office action, the PTO fails to indicate how Wang overcomes these deficiencies. Therefore, the rejection of claims 5 and 21 over the combination of Berstis, De Vos, Bates, and Wang is improper and should be withdrawn.

The rejection of claim 7 under 35 U.S.C. § 103(a) for obviousness over the combination of Berstis, De Vos, and Bates further in view of U.S. Patent No. 6,128,650 to Porter et al. ("Porter") is respectfully traversed.

The teachings and deficiencies of the combination of Berstis, De Vos, and Bates with respect to claim 1 are noted above. However, at page 7 of the office action, the PTO fails to indicate how Porter overcomes these deficiencies. Therefore, the rejection of claim 7 over the combination of Berstis, De Vos, Bates, and Porter is improper and should be withdrawn.

The rejection of claims 8 and 9 under 35 U.S.C. § 103(a) for obviousness over the combination of Berstis, De Vos, and Bates further in view of U.S. Application Publ. No. 2002/0047899 to Son et al. ("Son") is respectfully traversed.

The teachings and deficiencies of the combination of Berstis, De Vos, and Bates with respect to claim 1 are noted above. However, at page 8 of the office action, the PTO fails to indicate how Son overcomes these deficiencies. Therefore, the rejection of claims 8 and 9 over the combination of Berstis, De Vos, Bates, and Son is improper and should be withdrawn.

Applicants also submit that new claim 22 is patentable for the reasons noted above with respect to claim 1. However, claim 22 is narrower in scope, and recites that "the content analysis means (56) improves the quality of the audio or audio/visual stream stored in the recording collection by comparing a title in the audio or audio/visual recording collection (48, 50) to a title stored in a real time file system or a common memory and replacing portions of the title in the audio or audio/visual recording collection in order to remove voice over portions or defects of any kind or commercials." This feature is neither taught nor suggested by the art of record. Therefore, applicant believes claim 22 should also be allowed.

In view of all of the foregoing, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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